

Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Math Journal

## Module 5

### Lessons

1 - 41

**Read:**

Discuss with your partner what you notice about the rectangle.

Use your scissors to cut your rectangle on the diagonal lines. Prove that you have cut the rectangle into 4 fourths. Include a drawing in your explanation.

**Draw:****Write:**

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**Read:**

Mrs. Salcido cut a small birthday cake into 6 equal pieces for 6 children. One child was not hungry, so she gave the birthday boy the extra piece. Draw a tape diagram to show how much cake each of the five children received.

**Draw:**

Draw a tape diagram to show how much cake each of the five children received.

**Write:**

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**Read:**

Mrs. Beach prepared copies for 4 reading groups. Each reading group needed 6 copies. How many copies were needed for the class?

- Draw a tape diagram.
- Write both an addition and a multiplication sentence to solve. Discuss with a partner why you are able to add or multiply to solve this problem.
- What fraction of the copies is needed for 3 groups? To show that, shade the tape diagram.

**Draw:**

- Draw a tape diagram.
- What fraction of the copies is needed for 3 groups? To show that, shade the tape diagram.

**Write:** Write both an addition and a multiplication sentence to solve. Discuss with a partner why you are able to add or multiply to solve this problem.

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**Read:**

A recipe calls for  $\frac{3}{4}$  cup of milk. Saisha only has a  $\frac{1}{4}$  cup measuring cup. If she doubles the recipe, how many times will she need to fill the  $\frac{1}{4}$  cup with milk? Draw a tape diagram and record as a multiplication sentence.

**Draw:**

Draw a tape diagram.

**Write:** Record as a multiplication sentence.

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**Read:**

A loaf of bread was cut into 6 equal slices. Each of the 6 slices was cut in half to make thinner slices for sandwiches.

Mr. Beach used 4 slices. His daughter said, “Wow, you used  $\frac{2}{6}$  of the loaf!” His son said, “No, he used  $\frac{4}{12}$ ”

Work with a partner to explain who was correct using a tape diagram.

**Draw:**

Work with a partner to explain who was correct using a tape diagram.

**Write:**

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**Read:**

Use area models to prove that

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$$

$$\frac{1}{2} = \frac{3}{6} = \frac{6}{12}$$

$$\frac{1}{2} = \frac{5}{10}$$

What conclusion can you make about  $\frac{4}{8}$ ,  $\frac{6}{12}$ , and  $\frac{5}{10}$ ? Explain

**Draw:**

Use area models to prove:

**Write:** What conclusion can you make about  $\frac{4}{8}$ ,  $\frac{6}{12}$ , and  $\frac{5}{10}$ ?

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**Read:**

Model an equivalent fraction for  $\frac{4}{7}$  using an area model.

**Draw:**

Model an equivalent fraction for  $\frac{4}{7}$  using an area model.

**Write:**

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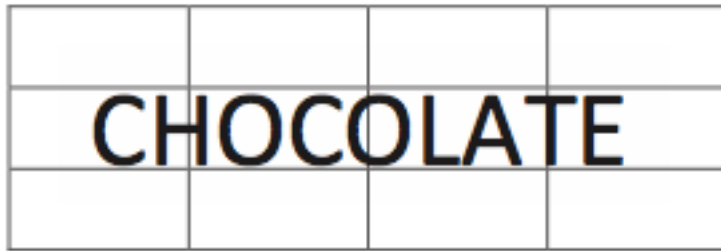
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**Read:**

Saisha gives some of her chocolate bar, pictured below, to her younger brother Lucas. He says, “Thanks for  $\frac{3}{12}$  of the bar.” Saisha responds, “No, I gave you  $\frac{1}{4}$  of the bar.” Explain why both Lucas and Saisha are correct.

**Draw:****Write:**

Explain why both Lucas and Saisha are correct.

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**Read:**

What fraction of a foot is 1 inch? What fraction of a foot is 3 inches?  
(Hint: 12 inches = 1 foot.) Draw a tape diagram to model your work.

**Draw:**

Draw a tape diagram to model your work.

**Write:**

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**Read:**

Nuri spent  $\frac{9}{12}$  of his money on a book and the rest of his money on a pencil.

- Express how much of his money he spent on the pencil in fourths.
- Nuri started with \$1. How much did he spend on the pencil?

**Draw:****Write:**

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**Read:**

Kelly was baking bread but could only find her  $\frac{1}{8}$  cup measuring cup. She needs  $\frac{1}{4}$  cup sugar,  $\frac{3}{4}$  cup whole wheat flour, and  $\frac{1}{2}$  cup all-purpose flour. How many  $\frac{1}{8}$  cups will she need for each ingredient?

**Draw:****Write:**

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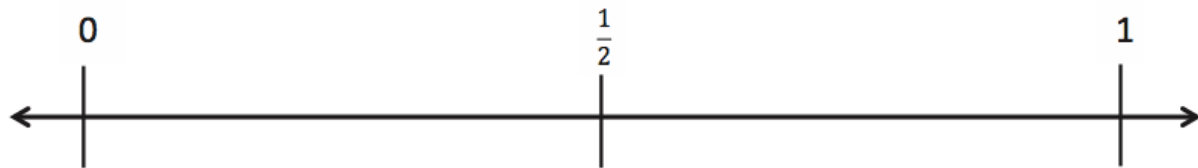
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**Read:**

Plot  $\frac{1}{4}$ ,  $\frac{4}{5}$ , and  $\frac{5}{8}$  on a number line, and compare the three points.

**Draw:****Write:**

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**Read:**

Mr. and Mrs. Reynolds went for a run. Mr. Reynolds ran for  $\frac{6}{10}$  mile. Mrs. Reynolds ran for  $\frac{2}{5}$  mile. Who ran farther? Explain how you know. Use the benchmarks 0,  $\frac{1}{2}$ , and 1 to explain your answer.

**Draw:****Write:**

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**Read:**

Compare  $\frac{4}{5}$ ,  $\frac{3}{4}$ , and  $\frac{9}{10}$  using  $<$ ,  $>$ , or  $=$ . Explain your reasoning using a benchmark.

**Draw:****Write:**

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**Read:**

Jamal ran  $\frac{2}{3}$  mile. Ming ran  $\frac{2}{4}$  mile. Laina ran  $\frac{7}{12}$  mile. Who ran the farthest? What do you think is the easiest way to determine the answer to this question? Talk with a partner about your ideas.

**Draw:****Write:**

Who ran the farthest? What do you think is the easiest way to determine the answer to this question?

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**Read:**

Keisha ran  $\frac{5}{6}$  mile in the morning and  $\frac{2}{3}$  mile in the afternoon. Did Keisha run farther in the morning or in the afternoon? Solve independently. Share your solution with your partner. Did your partner solve the problem in the same way or a different way? Explain.

**Draw:**

**Write:** Did your partner solve the problem in the same way or a different way? Explain.

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**Read:**

Use a number bond to show the relationship between  $\frac{2}{6}$ ,  $\frac{3}{6}$ , and  $\frac{5}{6}$ . Then, use the fractions to write two addition and subtraction sentences.

**Draw:**

Use a number bond to show the relationship between  $\frac{2}{6}$ ,  $\frac{3}{6}$  and  $\frac{5}{6}$ .

**Write:** Use the fractions to write two addition and subtraction sentences.

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**Read:**

Fractions are all around us! Make a list of times that you have used fractions, heard fractions, or seen fractions. Be ready to share your ideas.

**Draw:****Write:**

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**Read:**

Krista drank  $\frac{3}{16}$  of the water in her water bottle in the morning,  $\frac{5}{16}$  in the afternoon, and  $\frac{3}{16}$  in the evening. What fraction of water was left at the end of the day?

**Draw:****Write:**

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**Read:**

Two-fifths liter of chemical A was added to  $\frac{7}{10}$  liter of chemical B to make chemical C. How many liters of chemical C are there?

**Draw:****Write:**

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**Read:**

Winnie went shopping and spent  $\frac{2}{5}$  of the money that was on a gift card. What fraction of the money was left on the card? Draw a number line and a number bond to help show your thinking.

**Draw:**

Draw a number line and a number bond to help show your thinking.

**Write:**

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**Read:**

Mrs. Wilcox cut quilt squares, and then divided them evenly into 8 piles. She decided to sew together 1 pile each night. After 5 nights, what fraction of the quilt squares was sewn together? Draw a tape diagram or a number line to model your thinking, and then write a number sentence to express your answer.

**Draw:****Write:**

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**Read:**

Shelly read her book for  $\frac{1}{2}$  hour each afternoon for 9 days. How many hours did Shelly spend reading in all 9 days?

**Draw:****Write:**

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**Read:**

Mrs. Fowler knew that the perimeter of the soccer field was  $\frac{1}{6}$  mile. Her goal was to walk two miles while watching her daughter's game. If she walked around the field 13 times, did she meet her goal? Explain your thinking.

**Draw:****Write:**

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**Read:**

Barbara needed  $3 \frac{1}{4}$  cups of flour for her recipe. If she measured  $\frac{1}{4}$  cup at a time, how many times did she have to fill the measuring cup?

**Draw:****Write:**

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**Read:**

Jeremy ran 27 laps on a track that was  $\frac{1}{8}$  mile long. Jimmy ran 15 laps on a track that was  $\frac{1}{4}$  mile long. Who ran farther?

**Draw:****Write:**

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**Read:**

Both Allison and Jennifer jogged on Sunday. When asked about their distances, Allison said, "I ran  $2\frac{7}{8}$  miles this morning and  $3\frac{3}{8}$  miles this afternoon. So, I ran a total of about 6 miles," and Jennifer said, "I ran  $3\frac{1}{10}$  miles this morning and  $3\frac{3}{10}$  miles this evening. I ran a total of  $6\frac{4}{10}$  miles." How do their answers differ? Discuss with your partner.

**Draw:****Write:**

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**Read:**

One board measures 2 meters 70 centimeters. Another measures 87 centimeters. What is the total length of the two boards expressed in meters and centimeters?

**Draw:****Write:**

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**Read:**

Marta has 2 meters 80 centimeters of cotton cloth and 3 meters 87 centimeters of linen cloth. What is the total length of both pieces of cloth?

**Draw:****Write:**

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**Read:**

Meredith had 2 m 65 cm of ribbon. She used 87 cm of the ribbon.

How much ribbon did she have left?

**Draw:****Write:**

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**Read:**

Jeannie's pumpkin had a weight of 3 kg 250 g in August and 4 kg 125 g in October. What was the difference in weight from August to October?

**Draw:****Write:**

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**Read:**

There were  $4\frac{1}{8}$  pizzas. Benny took  $\frac{2}{8}$  of a pizza. How many pizzas are left?

**Draw:****Write:**

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**Read:**

Mary Beth is knitting scarves that are 1 meter long. If she knits 54 centimeters of a scarf each night for 3 nights, how many scarves will she complete? How much more does she need to knit to complete another scarf?

**Draw:****Write:**

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**Read:**

Rhonda exercised for  $\frac{5}{6}$  hour every day for 5 days. How many total hours did Rhonda exercise?

**Draw:****Write:**

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**Read:**

The baker needs  $\frac{5}{8}$  cup of raisins to make 1 batch of cookies. How many cups of raisins does he need to make 7 batches of cookies?

**Draw:****Write:**

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**Read:**

Eight students are on a relay team. Each runs  $1\frac{3}{4}$  kilometers. How many total kilometers does their team run?

**Draw:****Write:**

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**Read:**

Jackie's paper chain was 5 times as long as Sammy's, which measured  $2\frac{75}{100}$  meters. What was the total length of both their chains?

**Draw:****Write:**

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